

RECEIVED  
CENTRAL FAX CENTERPATENT APPLICATION APR 14 2004  
Mo-5946  
WW-5504

OFFICIAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF	)	
KLAUS-DIETER BLUMENBERG ET AL	)	GROUP NO.: 1751
SERIAL NUMBER: 09/673,944	)	EXAMINER: M. V. EINSMANN
FILED: OCTOBER 24, 2000	)	
TITLE: METHOD FOR PRODUCING TRANSPARENT, COLORED CELLULOSE SLEEVES	)	

APPEAL BRIEF

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

This Brief is an appeal from the Final Office Action of the Examiner dated July 14, 2003 in which rejection of Claims 1-6 were maintained. A separate Petition for Extension of Time is being filed simultaneously herewith such that this Appeal Brief will be considered timely filed.

## CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Godfried R. Akorfi Reg. No. 28,779  
Type or print name of person signing certification

Signature

April 14, 2004

Date

### I. REAL PARTY IN INTEREST

The real party in interest for the present appeal is the assignee Wolff Walsrode.

### II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of other appeals or interferences that will directly affect or be directly affected by or having a bearing on the present appeal.

### III. STATUS OF CLAIMS

The above-referenced application was filed with Claims 1-9 which were subsequently amended as follows. By an amendment of October 24, 2000, the application was amended to render the translated application in better conformance with US practice. By this amendment Claim 9 was cancelled and Claim 10 was added. By an amendment of October 22, 2002, Claims 7, 8 and 10 were cancelled. Claims 1-6, which remain in the application, stand rejected and are the subject of this appeal.

### IV. STATUS OF AMENDMENTS

Appellants filed an amendment after final rejection dated December 11, 2003 which was not entered because, "they raise new issues that would require further considerations and/or search".

### V. SUMMARY OF THE INVENTION

The present invention relates to a novel process for producing dyed, tubular food wrappings from non-woven fabric coated with regenerated cellulose, in particular skins of cellulose fibre. In accordance with the process, an alkaline dye liquor containing at least one dye, which has been previously converted into an alkali-soluble form by chemical reduction and which can be converted into its insoluble form by oxidation, is admixed to a viscose solution used for the production of a layer of regenerated cellulose.

Mo-5946

- 2 -

The mixture of viscose solution and dye liquor is used to coat a non-woven fabric. The viscose is coagulated and regenerated to form cellulose hydrate gel, and the dye distributed in the viscose is reconverted into its insoluble form by oxidation. It is a distinct feature of the invention that the process can be carried out economically on an industrial scale to produce a dyed tubular food wrapping having a high transparency and evenness of the dye. See page 4, lines 20-30.

#### VI. ISSUES

Issue 1:

Whether the Examiner erred in rejecting Claim 3, under 35 USC 112 second paragraph, as being indefinite in reciting the term "the dye liquor containing colour pigments" where the claim antecedently referred to an alkaline vat dye liquor.

Issue 2:

Whether the Examiner erred in rejecting Claims 1,3-6 under 35 USC 112, first paragraph, on the grounds that the specification, while being enabled for vat dyes, does not reasonably provide enablement for any other reduced dye which may be converted by oxidation to colored form.

Issue 3:

Whether the Examiner erred in rejecting Claims 1-6 as being unpatentable under 35 USC 103(b) over Wearing et al, GB 1,038,945, by basing the conclusion of unpatentability on Appellants' own teachings, and the teaching of the prior art without establishing a basis for modification to the claims.

#### VII. GROUPING OF CLAIMS

Claims 1-6 are hereby considered to be in the same grouping.

### VIII. ARGUMENTS

#### Answer to Issue 1

The Examiner erred in rejecting Claim 3 under 35 USC 112, second paragraph as being indefinite in reciting the term "the dye liquor containing colour pigments" where the claim antecedently referred to an alkaline vat dye liquor.

Appellants traverse the rejection because the claims comport to the requirements of 35 USC 112, second paragraph, in that they recite distinctly and particularly point out the claimed invention with particular reference to the dye liquor containing pigments that are recited thereby. Hence the inquiry here is into whether the claims reciting "the dye liquor containing coloured pigments" based on the antecedent of "an alkaline vat dye liquor" set out or circumscribe a particular subject matter with a reasonable degree of clarity and particularity.

It is well settled in that the requirements of 35 USC 112, second paragraph, are met when the claims meet the threshold requirement of precision and particularity, and that the requirement is not determined by whether more suitable language or expressions can be used.

The test of definiteness is whether the skilled artisan would understand what is claimed, Orthokinetics, Inc. v. Safety Travel Chairs, Inc. 1 USPQ2d 1081 (Fed. Cir. 1986). In this case, there is no evidence or reason of record suggesting that when properly analyzed, in the context of the application disclosure, the prior art and the claim interpretation that would be given by the skilled artisan, the skilled artisan would not understand claims reciting the term "the dye liquor containing coloured pigments" where the claims antecedently recite "an alkaline vat dye liquor". It is Appellants submission that the skilled artisan can readily understand the claims as to their metes and bounds. Therefore, the claims meet the requirements of the 35 USC 112, second paragraph.

It would seem that the Examiner's reason for the rejection is lack of antecedence between the terms "the dye liquor containing coloured pigments" and

Mo-5946

"an alkaline vat dye liquor". In this context, the test is whether the scope of a claim would be reasonably ascertainable by those skilled in the art. Appellants submit that the skilled artisan would be able to ascertain the scope of the claims. In this regard Appellants cite Ex parte Porter, 25 USPQ2d 1145, (Bd. Pat. App. & Inter. 1992) where the term "controlled stream of fluid" was held as providing an antecedent basis for the term "the controlled fluid". Applying the holding of Ex parte Porter, Appellants submit that in this case, the skilled artisan would readily ascertain that the term "alkaline vat dye liquor" provides an antecedence term for "the dye liquor".

#### Answer to Issue 2

Applicants submit that the Examiner erred in rejecting Claims 1, 3-6 under 35 USC 112, first paragraph, on the grounds that the specification, while being enabled for vat dyes, it does not reasonably provide enablement for any other reduced dye which may be converted by oxidation to colored form.

The 35 USC 112, first paragraph rejection is based on the grounds that:

"....the specification, while being enabling for vat dyes, does not reasonably provide enablement for any other reduced dye which may be converted by oxidation to colored form. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. For example, there is no enablement for dyeing with sulfur dyes or oxidation dye bases as are normally used in permanent hair coloration".

Appellants traverse the rejection because the subject application disclosure has characterized the claim-recited dyes so specifically that the skilled artisan can ascertain, make and use the same in accordance with the invention. More specifically, at page 5, lines 7-9 of the captioned application, the term dye is characterized as:

"....an alkaline dye liquor containing at least one dye which has been previously converted into an alkali-soluble form by chemical reduction and which can be converted into its insoluble form by oxidation;...."

The test for lack of enablement is whether the skilled artisan would have to resort to undue or unreasonable experimentation in order to ascertain how to make or use the claimed invention. Other than the Examiner's unsupported conclusion

Mo-5946

- 5 -

and speculation that certain dyes might not work in the invention, nothing of record supports a prima facie case of lack of enablement of the dyes that are readily ascertainable by the skilled artisan.

To the contrary, there is sufficient evidence of record showing that the application disclosure as filed complies with the requirements of 35 USC 112, first paragraph. Namely, the level of skill and the nature of the invention are well known; the materials used in the process are well known and the specification provides representative examples; based on the knowledge in the art and disclosure of the specification, there is sufficient guidance to the skilled artisan on employing the process with particular reference to the dyes used therein.

As to the Examiner's speculation about certain sulfur dyes or oxidation dye bases not being enabled, it is open to question as to whether these sulfur dyes or oxidation dyes fall within the field of the claim-recited dyes. Assuming arguendo that they fall within the field of the claim-recited dyes, the presence of said inoperative species does not render the claim non-enabling as to other members of the field, as long as the skilled artisan can readily ascertain whether said dyes fall within or outside the above characterization, Atlas Powder Co. v. E.I. duPont de Nemours & Co 224 USPQ 409 (Fed. Cir. 1984).

In this case, the dyes described by the specification can be ascertained by the skilled artisan. The claimed process falls well within the established field of producing dyed wrappings for food, in particular skins made of cellulose fiber, having high transparency and evenness of the dye for the claimed process. See the captioned application at page 1, lines 1-6. Dyeing in the field of the invention and in particular cellulose fiber is known in the art. See the captioned application at page 1, lines 25-27 which defines vat dyes as compounds having indigoid or anthraquinoid structure and are water soluble. The skilled artisan would select the dyes as described at page 5, lines 15-21 and page 8, lines 6-23. As such, the nature of the invention, and the state of the art is such that the skilled artisan would ascertain the useful dyes for the process.

Mo-5946

- 6 -

Finally, on this issue, Appellants submit that the fact that the specification does not disclose all the species of vat dyes and how each disclosed species is made or used does not render the claimed invention non-enabled. It is well established that where the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of the 35 USC 112, is satisfied. In re Fisher 166 USPQ 18 (CCPA 1970). Contrary to the Examiner's assertion, the specification provides sufficient information enabling the skilled artisan to make and use the invention, In re Wand 8 USPQ2d 1400 (Fed. Cir. 1988).

#### Answer to Issue 3

The Examiner erred in rejecting Claims 1-6 as being unpatentable under 35 USC 103(b) over Wearing et al., GB 1,038,945, by basing the conclusion of unpatentability on Appellants' own teachings and failing to establish a prima facie case for the proposed modification to the claims with a reasonable expectation of success.

It is well settled in the law that in the determination of obviousness, the motivation to make a proposed modification and the reasonable expectation of success must be found in the prior art and not in the application disclosure, In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991). In this case, the record is devoid of evidence or practical reason of record denoting the possible sources of motivation, In re Rouffet, 47 USPQ2d 1453 (Fed. Cir. 1998). And the motivation is impermissibly based on Appellants' disclosure.

The rejection is discussed and argued more fully hereunder. The rejection of Claims 1-6 under 35 USC 103(a) as being unpatentable over Wearing et al is based on the grounds that:

"Patentees disclose a method of producing colored speck-free cellulosic films formed from viscose (p1 lines 16-17). They are used for making seamless regenerated cellulose tubing, with or without fibrous web imbedded therein, used for the processing and packaging of meat products. See page 6 lines 19-23 and 69-80." ... Patentee

Mo-5946

- 7 -

teaches at page 1 lines 50 et seq, [that] "Adding a vat dye in the form of a leuco solution, i.e. reduced and solubilized, to viscose prior to extrusion also has not produced satisfactory results". That sentence teaches applicant's process except for the step of coating a non-woven fabric with the colored solution."

The Examiner therefore concluded that:

"It would have been obvious to the skilled artisan that the viscose solution colored with the vat dye as cited above is used to coat a fibrous web for the production of meat wrappings because patentee states that that is the intended use of the colored viscose solution. Since page 6 lines 19-23 disclose that said colored cellulose is generally used with a fibrous web imbedded therein, all of the elements of applicant's claims are disclosed."

Appellants traverse the rejection because the statement that "[A]dding a vat dye in the form of a leuco solution, i.e., reduced and solubilized, to viscose prior to extrusion has not produced satisfactory results..." is not a teaching of the claimed invention. The Examiner has failed to show how this negative teaching could constitute knowledge of the invention, or could have led the skilled artisan to the claimed invention.

It is timely to note that the object of the present invention is to provide a process for producing dyed tubular food wrappings made of non-woven fabric coated with regenerated cellulose, particularly skins of cellulose fiber having light transparency and evenness of the dye which can be carried out at low industrial expense. See the captioned application at page 4, lines 20-23.

The negative disclosure would not have motivated the skilled artisan to modify Wearing et al's teachings to the claims. It is well established in the law that the mere fact that a reference can be modified to the claims does not render the claims obvious, absent some basis in the reference or the general knowledge in the art which would have led the skilled artisan to make the modification, In re Mills 16 USPQ2d 1430 (Fed. Cir. 1990). The record fails to assert a basis for the proposed modification. As such, Wearing et al is insufficient as a basis for a prima facie case of obviousness.

Mo-5946

- 8 -



Appellants' argument of lack of motivation is augmented by the fact that Wearing et al relates to a process for producing colored cellulose films. The record remains undisputed that:

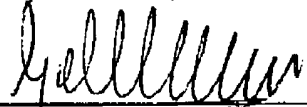
"[C]omparable dyeing processes using vat dyes have not hitherto been applied, however, to the group of products comprising skins made of cellulose fibre. A process for dyeing skins of cellulose fiber in the gel state in dye liquors is claimed in US Patent 3,383,443. However, the dyes used there are not vat dyes but naphthol dyes, which are fixed with stabilized diazo compounds." See page 2, lines 29-page 3, line 3 of the captioned application.

Other than the unsupported conclusion of obviousness, nothing of record suggests that the production of colored films would have led the skilled artisan to the production of cellulose fiber skins using vat dyes in the manner of the claimed invention.

In view of the foregoing arguments, Appellants pray for the reversal of the Examiner on each of the rejections.

Respectfully submitted,

By

  
Godfried R. Akorli  
Attorney for Applicants  
Reg. No. 28,779

Bayer Chemicals Corporation  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-3061  
FACSIMILE PHONE NUMBER:  
(412) 777-2612

s:/sr/akorli/gra0682

Mo-5946

- 9 -

**APPENDIX: CLAIMS ON APPEAL****IN THE CLAIMS:**

1. (Original) Process for producing dyed, tubular food wrappings from non-woven fabric coated with regenerated cellulose, characterized in that an alkaline dye liquor containing at least one dye which has been previously converted into an alkali-soluble form by chemical reduction and which can be converted into its insoluble form by oxidation is admixed to the viscose solution used for the production of the layer of regenerated cellulose, a tubular non-woven fabric is coated with the mixture of viscose solution and dye liquor, the viscose is coagulated and regenerated to form cellulose hydrate gel and the dye distributed in the viscose is reconverted into its insoluble form by oxidation.
2. (Previously Presented) Process according to Claim 1, characterized in that dyes of the class of substances comprising the anthraquinone derivatives, selected from the group consisting of derivatives of anthrimidecarbazole, acylaminoanthraquinone, acridone, benzanthrone, violanthrone, isoviolanthrone, indanthrone, and derivatives of more highly condensed aromatic ring systems, selected from the group consisting of pyrenequinone, anthanthrone, flavanthrone, pyranthrone, perylenetetracarboxylic acid, naphthalene-tetracarboxylic acid as well as indigo derivatives and thioindigo derivatives are used.
3. (Previously Presented) Process according to Claim 1, characterised in that for the chemical reduction of the dye liquor containing coloured pigments, sodium dithionite or sodium sulfide is used in a quantity of 10 to 90 wt.%, based on the pure, reducible dye in the dye liquor.

4. (Previously Presented) Process according to Claim 1, characterised in that the addition of the dye liquor to the viscose is 2 to 26 litres, per 100 kg viscose.
5. (Previously Presented) Process according to Claim 1, characterised in that the dye liquor contains in addition alkali- and acid-resistant non-reducible coloured pigments in a quantity of 3 to 12 wt.%, based on the total quantity of dye and dye pigment.
6. (Previously Presented) Process according to Claim 1, characterised in that the dye liquor contains cellulose ether, selected from the group consisting of carboxymethyl cellulose and methyl cellulose.
- 7.-10. (Cancelled)